

Spinal Cord Stimulation

All sensations of pain, from the neck to the toes, are delivered to our brain across a well-organized nerve highway called the *spinal cord*. Within the spinal cord the nerve pathways are highly organized. For example, pain from the left leg is transmitted on the left side of the spinal cord in a specific and predictable location.

This predictable organization of the spinal cord provides us with an opportunity to relieve severe pain by applying a tiny electrical current to the nerve pathways. This technique of pain relief is most useful for severe, nerve-related pain and is called *Spinal Cord Stimulation*.

Patients with nerve pain after spinal surgery are likely to be helped with this technique. It is also effective for Complex Regional Pain Syndrome (CRPS, RSD) and diabetic neuropathy.

This technique first involves a trial period, during which tiny wires (electrodes) are specifically placed into the spine through a needle. The procedure is outpatient. It is performed with mild sedation and local anesthetic and uses a fluoroscope (x-ray) to accurately place the electrodes. No incisions are made during the trial. Patients are able to go home and use the device for 4 to 5 days to determine its effect on their pain. The electrodes are then simply removed in the office.

If the trial is successful, the patient returns about 2 weeks later for permanent placement of electrodes and an implanted battery called a *pulse generator*. This system is wholly implanted within the patient's body like a pacemaker. Patients have the ability to control the device with a small remote control.

This technique is powerful, does not use medications, and is indicated for severe nerve-related pain for which simpler measures have failed.

Before either procedure, you should have nothing to eat for 4 hours. You may only have sips of water during the 4 hours prior and take your usual medications as scheduled, but no solid food.

Please confirm with us if you have diabetes, take blood thinning medications, or have experienced a reaction to iodine-containing medications (used for some x-rays.)

After the procedure, you may have soreness at the site of the procedure and experience mild worsening of your usual pain. You should sponge bathe, but not shower during the trial period. Take your antibiotics and other medications as instructed.

If you have fever, chills, new numbness or weakness, or other troubling symptoms, please call our office at any time at 707-252-9660.